

REMARKS

Claims 1-10 are pending, of which claims 1-10 have been rejected by the Examiner.

Claims rejected under 35 U.S.C. §102(e)

The Examiner has rejected claims 1-6 and 8-10 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent no. 5,653,540 issued to Heine *et al.* on August 5, 1997 (hereinafter “Heine”). The Examiner states “[c]laims 1-6 and 8-10 are rejected under 35 U.S.C. §103(e), as being anticipated by Heine et al. ‘540 (“Heine”). The Examiner finds all claimed subject matter to be present. See front page Fig and capillary near 104.”

Claim 1 of the pending application recites “an oil pumping groove pattern disposed at least partially along the second gap, the oil pumping groove pattern impelling oil toward the shaft when the shaft portion of the hub is rotated within the sleeve.” Nowhere is this recitation taught or anticipated by Heine.

The “front page Fig” of Heine that is cited by the Examiner is a reproduction of Heine’s Fig. 3. The Examiner’s “capillary near 104” apparently refers to the gap, proximate to surface “A” in the figure, between counterplate 58 and thrust plate 52. Of more relevance, Applicant’s claim 1 recites “a second gap region between the horizontal body portion of the hub and sleeve,” which is analogous to the gap proximate to surface “B” in Fig. 3 (i.e. a thrust bearing gap). Heine (4:33-46) teaches “As shown in... [Fig. 1], a journal bearing incorporating a shaft 10 rotating inside a bushing or sleeve 12, has one of the two opposing surfaces, in this case of the shaft, carrying cylindrical sections or spiral grooves. A thrust plate 14, rotating in a recess in the sleeve 12, is also provided with concentric spiral groove sections as shown. The relative motion of the shaft and sleeve combination pumps the fluid as a function of the direction and angle of the grooves with respect to the sense of rotation of the shaft 10 and thrust plate 14. Pumping action builds up multiple pressure in zones along the journal and thrust plate, maintaining a fluid film between the relatively rotating parts, and providing stiffness for the bearing.” Thus, although Heine teaches a fluid dynamic thrust bearing, Heine fails to teach or anticipate a fluid dynamic thrust bearing that is biased to also impel

fluid toward a journal bearing (“shaft”) as recited by claim 1. Furthermore, as illustrated in Heine’s Fig. 4B, Heine’s thrust bearing pattern does not appear to be configured to pump fluid toward the shaft.

In view of at least the above discussion, the applicant believes that claim 1 is in condition for immediate allowance, and requests that the Examiner reconsiders and withdraws his rejection of claim 1. Accordingly, because claims 2-6 and 8-10 are all either directly or indirectly dependent on claim 1 the Applicant respectfully requests the Examiner to reconsider and withdraw his rejections of these claims also.

Claims rejected under 35 U.S.C. §103

The Examiner has stated that “[c]laims 7,9 are rejected under 35 U.S.C. §103 as being unpatentable over Heine as set forth in the rejection of claim(s) 1-6 and 8-10..., and further in view of official notice of common knowledge in the art, or, in the alternative, engineering design choice.” Because claims 1, upon which claims 7 and 9 depend is now believed to be in condition for immediate allowance, the Examiner’s 35 U.S.C. §103 rejections of claims 7 and 9 are believed by the Applicant to be moot. Accordingly the Examiner is respectfully requested to reconsider and withdraw these rejections.

Alleged nonresponsiveness of prior Office Action response and finality of current office action

The Examiner has designated the Office Action dated February 27, 2006 as final, stating that “Applicant appears to have responded to the wrong Heine reference [in the prior response].”

The Applicant regrets that he did not fully understand what the Examiner had in mind when the Examiner stated in the Office Action dated September 22, 2005:

Claim(s) 1-6 and 8-10 are rejected under 35 U.S.C. 102(e), as being anticipated by Heine et al. (“Heine). The examiner finds all claimed subject matter to be present.

See front page Fig and capillary near 104.

Responsively, and lacking a specified U.S. patent number, the Applicant examined the front page figures of both Heine references of record: U.S. 5,635,540 and U.S. 6,173,650. In the front page figure of the '540 patent, the "capillary near 104" is a fluid dynamic bearing, whereas for the '650 patent, the "capillary near 104" is, indeed, a capillary seal. Accordingly, the Applicant believed that the Examiner had the '650 patent in mind, and the ensuing response addressed the Examiner's 35 U.S.C. 102(e) rejections believing that the Heine reference cited by the Examiner *was* U.S. 6,173,650.

Again, the Applicant regrets the miscommunication, and hopes that the Examiner accepts the response to the Office Action dated September 22, 2005 as a good faith effort by the Applicant, and respectfully requests the Examiner reconsider and withdraw the finality of the subsequent Office Action.

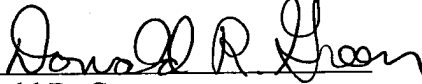
CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the U.S. Patent and Trademark office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing docket no. 146712015100. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully submitted,

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